

Changes to the Specification

Please replace paragraph [0010] with the following amended paragraph:

[0010] Referring to Fig. 1d, a second barrier metal layer 11 and a metal line 15 are deposited in sequence on the substrate including the via plug. Afterwards, an inorganic ARC layer 17 is deposited on the metal line 15. In one example, the second barrier metal layer 11 is formed of $\text{Ti/Ti}_{(1-x)}\text{Al}_x\text{N}$ or TiN and the inorganic ARC layer 17 is formed of ~~$\text{Ti/Ti}_{(1-x)}\text{Al}_x\text{N}$~~ . ~~$\text{TiN}$~~ $\text{Ti/Ti}_{(1-x)}\text{Al}_x\text{N}/\text{TiN}$ and is deposited by means of a physical vapor deposition (PVD) or a chemical vapor deposition (CVD).

Please replace the Abstract with the following amended abstract:

A method for preventing oxidation of a barrier metal layer of a semiconductor device is disclosed. The method ~~comprises~~ includes the following steps. $\text{Ti/Ti}_{(1-x)}\text{Al}_x\text{N}$ is deposited on the bottom and sidewalls of a via hole in a substrate by a plasma chemical vapor deposition to form a first barrier metal layer. The via hole is filled with a plug material and a planarization process is performed to form a via plug. A second barrier metal layer and a metal line are deposited in sequence on the substrate including the via plug. Then, $\text{Ti/Ti}_{(1-x)}\text{Al}_x\text{N}$ as an ARC layer is deposited on the metal line by a plasma chemical vapor deposition. Accordingly, the present invention can improve device reliability by controlling continuous oxidation of the barrier metal layer using $\text{Ti}_{(1-x)}\text{Al}_x\text{N}$ formed by addition of aluminum to TiN .